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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,587	01/20/2004	Yaz-Tzu Wu	LA-7196-138.US	4282
167	7590	08/09/2005	EXAMINER	
FULBRIGHT AND JAWORSKI LLP 555 S. FLOWER STREET, 41ST FLOOR LOS ANGELES, CA 90071			WRIGHT, INGRID D	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,587

Applicant(s)

WU ET AL.

Examiner

Ingrid Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US PN 6912122 B2) in view of Helot et al. (US PN6437973 B1).

With respect to claim 1, Chen et al. teaches (Fig. 1a,b,c- 2) a modularized electronic device coupling architecture for the coupling of a first modularized electronic device (110) with a second modularized electronic device (130) of a notebook computer, the modularized electronic device coupling architecture comprising: a rotation mechanism (120), which includes a fixed portion (126,127,128) and a rotatable portion (122,124), wherein the fixed portion (26,127,128) is fixed to the second modularized electronic device (130) while the circular rotatable portion (122,124) is rotatable on the fixed portion (126,127,128), and wherein the rotatable portion (122,124) is formed with at least one engaging hole (hole portion near fixing hole ((127))), at least one insert leg (not labeled), which has a first end (not labeled) and a second end (not labeled), wherein the first end (not labeled) is fixedly linked to the first end (not labeled) of the rotating shaft (not labeled), while the second end (not labeled) is used for insertion into

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the engaging hole (hole portion near fixing hole (127)) in the rotatable portion (122,124) on the rotation mechanism (120), a pivot mechanism (upper portion of insert leg (not labeled)), which is fixed to one side of the computer, and which includes at least one rotating shaft (31) that allows the first modularized electronic device (1) to be rotatable thereabout (see, for example, col. 3, lines 60-62).

Although, the first modularized electronic device (110) is not dismounted or independently from the second modularized electronic device, the first modularized electronic device (110) is operable while mounted with the second modularized electronic device (130) with a touchpad (not labeled) and a keyboard (not shown) and the first modularized electronic device (110) can be closed down onto the second modularized electronic device (130) for tablet use (see, for example, col. 3, lines 32-37 & lines 40-43).

Helot et al. teaches (Fig. 2) a mobile computer (20) having a base (22) and a keyboard (not labeled) and a removable display (28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the removable display of Helot et al. in the invention of Chen et al., in order to provide a more flexibility tablet/notebook computer whereby the tablet/notebook computer is separated into a two assemblies, a tablet and a keyboard and further allowing the user more flexibility in utilizing the individual assemblies.

With respect to claim 2, Chen et al. teaches (Fig. 1a,b,c-2) the first modularized electronic device is a tablet computer (see, for example, col. 3, lines 40-43), while the second modularized electronic device is a keyboard/touchpad base (see, for example, col. 3, lines 32-37).

With respect to claim 3, Chen et al. teaches (Fig. 1a,b,c-2) the first modularized electronic device is a tablet computer (see, for example, col. 3, lines 40-43), while the second modularized electronic device is a notebook base unit (see, for example, col. 3, lines 32-37).

With respect to claim 4, Chen et al. teaches (Fig. 1a,b,c-2) the first modularized electronic device is a display unit (see for example, col. 3, lines 20- 25), while the second modularized electronic device is a notebook base unit (see, for example, col. 3, lines 14-15).

Although, Chen et al. is silent as to a LCD display, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a LCD display in the Tablet computer, because it is well known in the art.

With respect to claim 5, Helot et al. teaches (Fig. 2) a first-type connector (160,162) and a second-type connector (164,166) which is coupled to the first-type

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connector via a cable (168) to establish a data communication link between a display (28) and a base (22).

With respect to claim 6, Helot et al. teaches (Fig. 2) the first-type connector (160,162) that is electrically connected to a second-type connector (164,166) via a flexible cable (168), although the first-type connector is not hot pluggable to the second-type connector.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to easily make the first-type connector hot pluggable to the second-type connector because hot plug is well known and widely used in the art.

With respect to claim 7, Helot et al. teaches (Fig. 2) a first-type connector (160,162) and the second-type connector (164,166), although silent as to the connectors being USB (Universal Serial Bus) compliant connectors.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize USB connectors.

With respect to claim 8, Chen et al. teaches (Fig. 1a,b,c-2) an engaging mechanism, which is capable of engaging the insert legs (not labeled) in position in the engaging holes (hole portion near fixing hole (127)) in the portion of the rotation

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mechanism (120).

With respect to claim 9, Chen et al. teaches (Fig. 2) the engaging mechanism includes: elastic locking member (spring element on fixing stud (128)), which is arranged on the second end of each of the insert legs (not labeled), and which is capable of being positioned on the inside of the insert leg (not labeled) when subjected to an external force and positioned on the outside of the insert leg (not labeled) when the external force is removed; and a locking hole structure (127), which is formed in the inner wall (not labeled) of the engaging hole (hole portion near fixing hole (127)) in the rotatable portion (122,124,125) of the rotation mechanism (120), and which is capable of locking the insert leg (not labeled) securely in position when the second end of the insert leg (not labeled) is inserted in position in the engaging hole (hole portion near fixing hole (127)) (col 3, lines 44-67 of Chen et al.).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US PN 6912122 B2) in view of Helot et al. (US PN6437973 B1) further in view of Armitage et al. (US PN 6282082 B1).

With respect to claim 10, Chen et al. teaches (Fig. 1a,b,c,d-2) a modularized electronic device coupling architecture for the coupling of a first modularized electronic device (110) with a second modularized electronic device (130), the modularized electronic device coupling architecture comprising: a rotation mechanism (120), which includes a fixed portion (126,127,128) and a rotatable portion (122,124,125), wherein the fixed portion (126,127,128) is fixed to the second modularized electronic device (130) while the rotatable portion (122,124,125) is rotatable on the fixed portion (126,127,128), and wherein the rotatable portion (122,124,125) is formed with at least one engaging hole (hole portion near fixing hole (127)), a pivot mechanism (upper portion of insert leg (not labeled) (see, for example, fig. 2) which is fixed to one side of the tablet computer (110), and which includes at least one rotating shaft portion (see, for example, fig. 2) that allows the first modularized electronic device (110) to be rotatable thereabout, at least one insert leg (not labeled), which has a first end and a second end, wherein the first end is fixedly linked to the first end of the rotating shaft portion (see, for example, fig. 2) on the pivot mechanism (upper portion of insert leg (not labeled)), while the second end is used for insertion into the engaging hole (hole portion near fixing hole (127)) in the rotatable portion (122,124,125) (on the rotation mechanism (120)).

Chen et al. does not teach first and second-type connectors.

Although, Helot et al. teaches (Fig. 2) a first-type connector (160,162) and a second-type connector (162,164) to thereby establish a data communication link between a base (22) and a display device (28), he does not teach a modularized electronic device that is independently operable when dismounted from the second modularized electronic device.

Armitage et al. teaches (Fig. 6, 7) a modularized electronic device (102) that is independently operable when dismounted from the second modularized electronic device (104) (col. 8, lines 43-48).

Helot et al. teaches (Fig. 2) a first-type connector (160,162) and a second-type connector (162,164) to thereby establish a data communication link between a base (22) and a display device (28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the connectors of Armitage et al. and connect the independently operable Tablet of Helot et al. on the notebook base of Chen et al., in order to increase the flexibility of the Tablet/notebook computer in which the tablet and the notebook base (with keyboard) is separable.

With respect to claim 11, Chen et al. teaches (Fig. 1a,b,c,d -2) the first modularized electronic device (110) is a tablet computer, while the second modularized electronic device is a keyboard/touchpad base (130).

With respect to claim 12, Chen et al. teaches (Fig. 1a,b,c,d -2) the first modularized electronic device (110) is a tablet computer, while the second modularized electronic device (130) is a notebook base unit.

With respect to claim 13, Chen et al. teaches (Fig. 1a,b,c,d -2) the first modularized electronic device (110) is a liquid crystal display unit, while the second modularized electronic device (130) is a notebook base unit.

With respect to claim 14, Helot et al. teaches (Fig. 2) the first-type connector and the second-type connector, but not USB (Universal Serial Bus) compliant connectors.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the connectors that USB compliant as they are well known in the art.

With respect to claim 15, Chen et al. teaches (Fig. 2) an engaging mechanism, which is capable of engaging the insert legs (not labeled) in position in the engaging

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holes (hole portion near fixing hole (127)) in the rotatable portion (122,124,125) of the rotation mechanism (120).

With respect to claim 16, Chen et al. teaches (Fig. 2) the engaging mechanism includes: an elastic locking member (spring element on fixing stud (128)), which is arranged on the second end of each of the insert legs (not labeled), and which is capable of being positioned on the inside of the insert leg (not labeled) when subjected to an external force and positioned on the outside of the insert leg when the external force is removed; and a locking hole structure (127), which is formed in the inner wall (not labeled) of the engaging hole (hole portion near fixing hole (127)) in the rotatable portion (122,124,125) of the rotation mechanism (120), and which is capable of locking the insert leg (not labeled) securely in position when the second end of the insert leg (not labeled) is inserted in position in the engaging hole (hole portion near fixing hole (127)).

Regarding the method claims 17-25, the method steps recited in the claims are inherently necessitated by the device structure as taught by Chen et al., Helot et al. and Armitage et al. Chen et al. (Fig. 1a,b,c,d-2) disclosed a modularized electronic device coupling method for the coupling of a first modularized electronic device (110) with a second modularized electronic device (130), the modularized electronic device coupling method comprising: a pivot mechanism (upper portion of insert leg (not labeled) (fig. 2) and a rotation mechanism (120) respectively on the first modularized electronic device

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(110) and the second modularized electronic device (130), wherein the pivot mechanism engaged with the rotation mechanism (120) so as to mechanically and electrically couple the first modularized electronic device (110) with the second modularized electronic device (130), wherein the second modularized electronic device used as a data input interface for the first modularized electronic device (110), wherein the first modularized electronic device (110) is collapsible and rotatable on the second modularized electronic device (130), wherein (as disclosed by Armitage et al. (fig.6,7)) disclosed a modularized device dismounted from another modularized electronic device (104) can serve as an independent functional unit, the modularized electronic device includes a CPU and associated hardware/software facilities that allow the modularized electronic device (102) to operate independently as a data input and processing unit, wherein the hardware/software facilities are selected from the group comprising memory, hard disks, and operating systems, wherein the first modularized electronic device (110) is a tablet computer, while the second modularized electronic device (130) is a keyboard/touchpad base, wherein the first modularized electronic device (110) is a tablet computer, while the second modularized electronic device (130) is a notebook base unit, wherein the first modularized electronic device (110) is a display unit, while the second modularized electronic device (130) is a notebook base unit, wherein (as disclosed by Helot et al. (fig. 2)) a first-type connector (160, 162) and a second-type connector (164,166) electrically coupled to a modularized electronic device to another modularized electronic device, wherein a first-type connector (160, 162) and the second-type connectors (164,166), wherein (as disclosed by Armitage et al. (fig.

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6,7)) a first modularized electronic device (102) detached from the second modularized electronic device, wherein the first modularized electronic device (104) is operable as an independent data input and processing unit.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Hsu (US PN 6798646 B2), Leapman et al. (US 2003/0198008 A1), Ko (US PN 6816366 B2), Chen (US PN 6694570 B2), Hsu (US PN 6804861 B2), Chen et al. (US PN 6891722 B2), Nobuchi (US PN 5873554), Wu (US PN 5016849), Huang et al. (US PN 6595481 B1), Cho (US PN 6065732), Tseng et al. (US PN 6654233 B2), Davis (US 2002/0158811 A1), Chen (US 2004/0012509 A1), Moon (US PN 6275376 B1), & Anderson (US PN 5335142) show the general state of the art regarding electronic or computer configurations that have displays that are rotatable.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ingrid Wright whose telephone number is (571) 272-8392. The examiner can normally be reached on M-F.

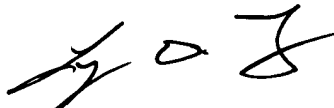
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2800, ext 35. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/2/05
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